Interview with Arkadiy Naumov

DeadlyAnomalies

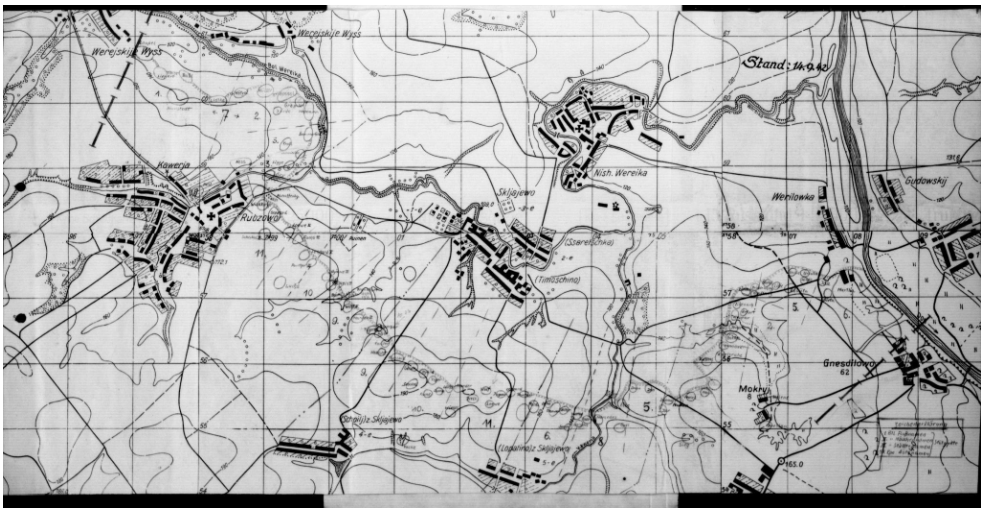
Introduction

I recently had the great fortune to come into contact with Arkadiy Naumov, one of the co-authors of the companion books for the Graviteam Tactics: Mius-Front DLCs *Bird Grove* and *Stalemate on Donets*. He has graciously accepted my proposal for an interview regarding his works, this document will provide previously unseen insight into the makings of the books in particular and the scientific process behind any similar work in general, not dissimilar to what Graviteam Tactics themselves painstakingly go through when creating their games.

Companion books linked below.

Bird Grove:
https://shared.fastly.steamstatic.com/store_item_assets/steam/apps/1848420/manuals/Gnezdilovo-Olkhovatka_September_1942_Digital-Book-V-09-09-2022.pdf?t=1724974906

Stalemate on Donets:
https://shared.fastly.steamstatic.com/store_item_assets/steam/apps/2349300/manuals/The_Semenovka_Bridgehead_July_1943_Digital-Book-V-14-01-2024.pdf?t=1767876157



Frontline map of the 377th Infantry Division (German) on September 14th, 1942, from the first companion book.

Interview

DA = DeadlyAnomalies

AN = Arkadiy Naumov

Part A - About the two companion books.

DA: Arkadiy, first of all thank you for agreeing to this interview, I hope everyone reading will appreciate you taking your time to answer these questions. Could you tell me a little bit about your background and how you came into contact with the Graviteam Tactics series of games?

AN: Grew up in Kaliningrad, Russia, lived in the US for 20+ years. Day job is financial modeling, background in CS. No military connection other than attending military department (военная кафедра) in college, from which I remember absolutely nothing (owing to both not paying attention and time passed).

If I recall correctly, I was into WH 40k at the time, but the gameplay of replicating tabletop experience was unsatisfactory, and I was looking for something where units would have some agency. That turned me onto Combat Mission. I watched a lot of gameplay, it was interesting, but horror stories about making it run kept me from taking a plunge. And for those in the know, where there is CM, there is Graviteam. I got Tunisia on sale for peanuts, booted the attack "tutorial", saw the rollers going up and down, giving an impression that the AFV actually has non-zero weight, and clouds of dust kicked up as M4 mediums rumbled down the road, and I was hooked. Of course Shermans were picked off by the flanking AT fire, as it happens with all unsuspecting GT novices, but that did not matter.

DA: I think many of us who enjoy the work of Graviteam Tactics became interested in the same manner, many aspects of the fidelity of the simulation are unmatched to this day in the genre at this scale. As I understand it, were you a regular member of the games community before the companion books came into being? Explain a little bit further how you went from watching your Shermans getting blown to pieces to working on the project.

AN: I found the concept of the game fascinating, especially as I kept discovering underlying mechanics that are completely foreign to a typical RTT (for example, did you know that the reason why the manual says "visible and recognized" when describing a color of an enemy icon is because the game models "recognition" separately from "getting seen"). In a very simple manner, but still, quite a novel concept). With experience, I found that actually playing a long campaign in a manner that's engaging is (a) very time consuming and (b) bound to be spoiled by one or many idiosyncrasies of the game. Instead, for me it was really interesting to test out undocumented functionality and try to come up with explanations for certain behaviors. There were plenty of opportunities at the time as the developers would drop new mechanics/change

existing regularly. Testing is often not trivial, given the sheer number of mechanics that interact at any point during an engagement (and yet more difficult for operations). With that, sharing the findings with the community, looking for feedback and additional information became routine. Another popular type of interaction were discussions on historical accuracy (some factual: “was unit X in the battle Y?” and some aren’t quite so: “were early soviet AT grenades effective?”). At the time, Andrey (the lead developer) was also quite active posting and responding. I don’t remember how exactly it played out, but one of the active community members Toni (I was looking into German documents in Tunisia, and he helped me with translations on occasion - keep in mind, this is the time before genAI was a thing) reached out to me. Toni had occasional contact with Andrey, and he also knew that I frequent Russian WW2 online archives Pamyat Naroda, and that I am fluent in Russian. Don’t recall who’s exact idea it was - Toni’s or Andrey’s, but Toni told me about the new DLC and a full-size companion book concept (vs short write-ups Andrey was doing up to that point). I checked Pamayat Naroda, there was plenty of material, so it was a go! Toni and I did the book essentially independently [from the developers], except that the Red Army events summary (the section prior to the documents translations) was written by Andrey based on the largely same documents.

Editor’s note: https://pamyat-naroda.ru/ is a Russian project that seeks to obtain and publish the most complete digital information, containing documents, awards citations and information related to the Russian participation in WWII (often referred to as the Great Patriotic War in Russia).

DA: Alright, so work on the book for *Bird Grove* started, you have talked a little bit about online archives, how does that actually work? Please take us through the work step-by-step from a blank page to a finished one. One thing to keep in mind here also is that as I understand it these books are meant to be compilations of translated documents, leaving us readers to make our own conclusions if we want to, this is as I understand quite different to most books one can find on WW2?

AN:

Once I know dates and location (i.e. the scope of the DLC), it's a top-down approach: find which Front (Red Army equivalent of Army Groups) is overseeing the operation, then go down the hierarchy - Army, Corps (if applicable), Divisions/Brigades. Main document types you are looking for to start with are Orders, Sitreps, War Diaries and AARs. The latter is best-suited for readers' consumption as it contains narrative, opinions and lessons learned (and in most cases strength, losses, etc.) Orders typically need to be read alongside the map in order to have a chance of understanding them, but are quite useful as they provide unadulterated vision of the situation as seen by the entity issuing them: sitreps might be inaccurate (unknown situation on the ground), AARs might be pushing a narrative favorable to the author, but orders are unambiguously true (whether or not they are reflecting actual situation on the ground or even were acted upon is an entirely different conversation). In addition to main players (i.e. units of the line - rifles, armor), I look for data on supporting elements - reinforcement artillery, engineers, air. Even if these do not get included into the booklet, they'll allow us to construct detailed OOB and a more accurate heavy weapon assignment. Additional documentation may include personnel/weapons/ammo availability reports (helpful in setting up game operations), planning other than orders, random directives (from time to time one sees a prohibition on using grenades for fishing or KS bottles for campfires), etc.

Search itself is largely straightforward: Pamyat Naroda can go by author (unit name or a person) or archive reference (fund/series). I prefer unit names, although I might check out a given fund to see what else comes up - never know what you can find. Unit names are ambiguous at times - breakthrough tank regiments are the worst offenders, there are at least five different abbreviations they could use to tag documents with. Very annoying.

For Bird Grove in particular, we ended up with more documents that we could use (typical for a big Red Army offensive - as opposed to say the situation in Typhoon Rising), so Toni and I had to make a decision on what to include and what to drop. At the same time comes formatting (all Toni!) and refining the language (I would be helping review Toni's translations to avoid anything that sounds too German :)

Yes, the books are compilations of translated documents, exactly as they were written. You make what you will of it. It is indeed very engaging to analyze the materials for patterns or contrast the views from the opposing sides, but that's something folks can do for themselves, armed with [very imperfect] data. You might notice that 86th brigade states in the AAR how most of their tanks were taken out by subcaliber rounds, but then attach a report where all but two disabled tanks are marked as hit by "thermite round" (HEAT) - I am not in the business of saying which one is correct. You might need to look into German ammo expenditure for that. I suppose we can get away with it because of the narrow focus. As we wrote in the introduction for the Donets engagement, it's generally rare to have such detailed material for a battle that's not on anyone's radar. Unlike, say ETO or nowadays, perhaps Kursk or Stalingrad, episodes from less famous engagements might be mentioned briefly at best. One exception that I am aware of are books by Igor Sdvizhkov (Игорь Сдвижков) - extremely detailed describing action near Voronezh, always based on documents from both sides and even interviews locals/veterans and visits the battle sites. Incidentally, one of those books covers events close to Bird Grove's area (place just north of it) in the summer of 1942.

Editor's note: Arkadiy is being very humble here, but as he mentions in his above answer, these kinds of compilations of translated documents are extremely rare. Historians generally view these documents and then write their own interpretations of what happened, here we are able to make any conclusions as readers completely on our own from the first-hand material presented.

Screenshot from the Bird Grove DLC for Graviteam Tactics Mius Front, a German Pz II engages a Soviet T-60 with its 2cm autocannon.

DA: I see, so the kind of work which you and your co-authors have so nicely compiled into the companion books can theoretically be done by anyone out there with enough time and energy on their hands? You mentioned earlier that you frequent Russian online archives surrounding WW2. I know you took a look at documents surrounding the battles around Korotich whilst I played the *Against the tide* DLC on my YouTube channel, is this something you have done for other operations featured in the Graviteam Tactics games? Any interesting finds that you think should be highlighted?

AN: Yes, especially nowadays with improved genAI you may get a palatable OCR+translation right off the bat. Although some German documents are apparently written in a weird script that's no longer used, maybe that's exactly where the new tools will shine. Ironically, in my mind, the dubious prize of worst quality writing goes to some of the US hand-written messages that I saw in US 1ID archives. But it's also possible it was the disappointment that left such an impression: I expected an easy process (it's in English after all) and got the equivalent of an unreadable doctor's note. Might be tougher to find the right information for the Germans as NARA archives aren't splitting their scans into small docs searchable by date/unit.

I did look at extra details for quite a few engagements. Doing it might change the way you perceive the operation (depending on how well/detailed the in-game briefings are written, those briefings might also be useful, but one has to actually play through the operation to get to them all). It could be a bigger picture context (how Raging Bridgehead fits into the Luga Line defense

or the Korotich operation into the battle for Kharkiv), geographical connection between operations (Karbusel and Vinyagolovo are actually really close - and the frontlines did not change much in a year between), sides' expectation before the start, reaction to the events, details about why OOB is the way it is (what in the world is the "forward detachment" of Korotich operation), etc. As for interesting finds, it's hard to tell what qualifies as "interesting". I did end up providing suggestions to Andrey to update a few operations with more detailed data (Raging Bridghead, Typhoon Rising). For the latter, there is not much available from the day of - Red Army units were thoroughly defeated and either have very sporadic entries or nothing at all, with the gap immediately after the day of the depicted engagement where they were retreating through dense woods too busy to keep good (or rather any) records. And Germans didn't leave a lot to go by either. Although they did claim they were ambushed by T-34s camouflaged as hay stacks (repelling the attack with surprisingly little losses). For Pelishi, I found what seems to be the map of 90RD prepared obstacles and minesfields, but as Andrey pointed out - German documents didn't call out any of these.

I also ran across confirmed use of interesting equipment currently not in the game: T-30, 76.2mm AA Gun, 76.2mm divisional gun M1933, 15cm sIG 33 (sf) auf PzKpfw I B, etc. I want to caveat that in my opinion, improving game mechanics is way more impactful than adding every possible piece of kit under the sun (which seems to be a point of some ww2 games). No matter how many types of vehicles you have in the game, they still cannot get out of their own trenches without flipping. And no matter how many gun types - fundamental flaws in a deployment mechanism will still have the opponent putting them in the middle of the woods whenever it feels like it. But should developers need a reason to add more toys into the game, it's certainly there.

DA: Interesting! Before we move on and talk about the other companion book, you make an interesting point about game mechanics, equipment and their simulation. Have you noticed anything during your research for the two books or in general that you would say is hard to model when trying to simulate the WW2 battlefield? The Graviteam Tactics series of games have a lot of novel features missing from other similar games, but I am sure you must have found some flaws here as well?

AN: A very obvious flaw to point out would be the unfortunate transition from the H&C game (the operational phase) to the continuous time in 3-D world that is GT combat. But one does not need to spend any time researching WW2 documents to pick that up, so I will instead talk about ambiguity at all levels of command hierarchy. In the game we get perfect data about our own troops, exact count and location of all visible enemies. Even airplanes can decipher friend/foe as if transponders are worn. In reality troops would have sheets laid out in front of their positions (or firing flares of a given color). Even then, expected location still plays a major role: during

Blau advance, a company of Germans got way ahead of the planned route and were bombed by their own airforce, despite designating themselves with the agreed-upon smoke color. Pilots evidently did not believe they would encounter any friendly forces so far ahead and it turned out to be the largest loss for the division for that day[1]. On the ground, conditions are only barely better. There is an anecdote of a detachment defending a bridge in the city of Voronezh with the orders to blow it up if there is a danger of a German takeover[2]. They see tanks rolling towards the bridge, the commander orders to trigger the explosion, and it turns out that tanks were remnants of a Red Army tank brigade withdrawing. The security detachment commander was court-martialed. Nighttime/bad visibility battles should end up with units not only unable to hit anything (sure, we see the bright flash from the enemy shooting, but how does one determine the distance? You cannot even judge over/under unless your own impacts highlight the enemy), but also unable to reliably move more than a little at a time. My favorite story from Sdvizhkov's book is one of what's meant to be a daring night raid using an armored fist of several tank brigades. What could possibly go wrong (no, they did not all fall into a ditch, although that would be a very Graviteam thing to have happened) - read to find out! But that's Soviets you say, their tanks communicate by flags, and you cannot see flags in the dark [/s]. Well, here is an example from the radio-rich US Army (AAR of US 9th ID, Tunisia, second operation of El Guettar):"…The last battalion in column, the 2nd, prior to daylight had been directed to maneuver still further to the south through the scattered and difficult terrain near Djebels Lettouchi and Kreroua. While it was still dark this battalion was caught in a pocket by devastating fire and the personnel of one complete company (Company "E", 47th Infantry) was killed or captured. The location of the remainder of the battalion *was not ascertained for the next thirty-six hours*. Meanwhile the 1st Battalion, 39th Infantry, which had followed the 47th, was committed on Division order and instructed to extend the envelopment further to the south. This battalion *became lost* and was not engaged on the first day." Radios be damned. At times, having *a map* was a luxury.

The element of maneuver is effectively missing from the game, and cohesion is a hard thing to model (is it just "everyone got into a formation, now we are operational" or something more?) So we would not experience how overlapping attacking lanes between two units lead to disastrous consequences or how during Karbusel, a division of the second echelon wasted 48 hours trying to rotate into the frontline, with its units getting scattered (no enemy influence, just bad terrain). Successful use of artillery often reads "enemy started forming up for attack/counter attack, but was dispersed by arty", but this is almost never a factor in the game - if the sides do not start on top of each other, they are at the "advance at the enemy" stage . That in itself is not always bad, back to Karbusel, it was reported that at times positions were separated by mere

[1] the tidbit is from Sdvizhkov's series of lectures about Blau
[2] another Sdvizhkov's series of lectures about fighting in Voronezh

100-200 meters (it was in the woods, so it was within hearing distance, but they could not see each other). But we also might get a battery or two of heavy guns plopped 500m away from the frontline into a flat steppe in broad daylight. Artillery is of course oversimplified to the Nth degree, but that's a separate topic. Key terrain features, such as Saur-Mogila or tall hills of El Guettar should ideally have an outsized impact due to the afforded observation. Here is what commanding general 9th US ID had to say: "...This principle has been taught for years, yet at EL GUETTAR, HILL 772 remained in German hands during the first ten days of the battle. As a result the enemy had artillery observation and was able to fire on anything that moved. As soon as HILL 772 was captured, the Germans abandoned the entire position…". But without faithfully modeled maneuver, there is nothing to prevent.

DA: These are very astute observations with interesting stories from the past to add! Thanks for sharing. Moving on to something a bit closer to the present, I want you to tell us a little bit about the second book for the *Stalemate on Donets* DLC. We have gone through the workflow a little in making these documents, but was there anything that stood out here as different from the previous book? Also I have gotten the impression through our personal correspondence that you are a bit more proud of how this book turned out, why?

AN:

From a perspective of a "product presentation", the quality of the formatting and extra goodies in the second book really stand out to me - Toni outdid himself. Everything, from the cover to fonts is so much more polished. And he managed to get extremely high-quality aerial photos for the events of the battle from NARA archives from his acquaintance (Eugene Matyukhin). These photos add to the multi-modal experience, one even captures a moving tank. We also tried to cut the dry text with illustrations when possible (barely - it's still essentially a wall of uninterrupted text with random hard-to-pronounce Russian toponyms), and included more maps references with the book. Additionally, Toni's job of getting a coherent story for the German side was complicated by (what else is new?) messy German materials thanks to frequent re-shuffling of subordination. And Wiking does not have anything in NARA from this period to boot. Yet again, hats off to Toni for coming out with polished material in the end. We ended up using memoirs for the Narwa battalion (listing the source of course) as well as an award commendation for a SS tank commander in addition to your usual operational documents. I would argue, if sold commercially, this would set one back $30-40, but everyone gets to enjoy it free of charge. Given how much time Toni and I sunk into preparing the book, there is no way in hell it would be NPV-positive, so it may as well be free. I could have spent all this time improving my Data Science skills instead, increasing my earning potential :)

DA: I for sure was pleasantly surprised that these books are available for free, especially for my YouTube audience members that wish to follow along as I play the Bird Grove DLC. As you say, these kinds of translated and compiled documents usually are not available for free and they are pretty rare to boot. On the topic of that, is there anything you would like to highlight in the books that could serve as a "key" to success for us in-game commanders when we try to conquer the digital battlefield in the two DLCs?

AN: Given how the game measures success or how I haven't played through an operation since 2021, I am not in the best position to advise on how to conduct the operation in-game. Chibisov (commanding, 38A) seem to think he needed one more rifle division, more artillery ammo and air support (feedback on the plan for the offensive):
Due to the lack of personnel (rifle companies are staffed at 30-50 % of prescribed strength) in the Army containment group and the Army strike task force, as well as insufficient army reserve strength, I request:

1. Transfer one RD under my command to be used against the enemy counter-attacks. [did not happen]
2. Allocate no less than 3.5x units of fire for the artillery. As it stands today, total ammunition (including those with the units, at depots and allocated by Voronezh Front so far) comes to 1.5x units of fire. [Also did not happen, in the lessons learned of 38A AAR, they complain about ammunition shortages, so all those pieces were not effective]
3. Since it's impossible to amass enough artillery in the Army zone of action (60 guns per 1km of frontline) and we lack the means to conduct counter battery missions or interdict arriving reserves, I request air support for the second half of the first day and for the second day of the operation.

So while players for the German side might think they are facing "endless waves of Soviet infantry", maj. gen. Chibisov would beg to differ.

In the Donets operation, major concern was the river crossing. It was a serious obstacle for both the infantry assault and armor. In fact the original plan for the 23rd Tank Corps assumed it would be able to start from the Izyum bridgehead where the crossing within the city was relatively secure (and the corps began moving into the bridgehead prior to the operation's start). But with the 6th guards rifle corps (and attached armor) failing to break out of the bridgehead, the decision was made to move the 23rd Tank Corps and take advantage of the newly captured footholds within the 4th Rifle Corps zone of action (which weren't quite sufficient, yet the hope was to expand those) and newly built bridges (also not quite sufficient and under attack). There are documents by engineers (not included in the book) describing in detail all of the crossings they maintained and bridges they built and how they would come under attack/end up damaged.

The game, of course, does not give forced crossing justice (seeing a river in an operation is not a good sign for the expected experience): you get infantry wading across, tanks deciding they are one of those underwater Shermans, etc. Or one just moves the BG in the empty node on the other side and that's that. One can also replace any platoon within a battleground within a turn, so getting reinforcements is guaranteed no matter where your BG is.

But we are getting into game flaws too much at this point, and that was just discussed, so I'll leave it alone.

Part B

DA: Moving on from the two companion books, which was the initial focus for this interview (which I think we have covered quite extensively by now) I was thinking I could ask a bit about if you have heard anything from the Graviteam Developers, as far I understand there has been a bit of a radio silence since the war in Ukraine began?

AN: I have to caveat - the following is my opinion, based on publicly available information (I did not talk to Andrey in quite a while).

I do not see anything happening until something materially changes with the war. [For those who are not aware, Graviteam office is located in Kharkiv and the developers did not leave the city.] Why do I think so? Well, when the war broke out, and Russian forces were close enough to the city to hit it with heavy artillery, Graviteam was still putting out new content. In fact, Bird Grove was done literally under Grad fire. This unfortunate personal experience is what moved the devs to implement the really terribly sounding explosions. Anyway, the devs were doing a ton of work (gameplay changes as usual, DLCs, including Donets and even the controversial "capture territory by nodes" update that took a lot of effort) despite being close to frontlines. So I take the fact that they stopped (occasionally letting people know they are "OK, but busy") as a sign they found something more important to do than the game (perhaps a defense contract?)

But we did see some game-related activity when the rights for Tunisia game were transferred (no idea why) from the original publisher Strategy First to Graviteam and the devs updated the name. It would be really nice if the games were combined, so that one can have battle editor engagements with US, UK, Germans and Red Army troops, alas - not happening any time soon.

DA: Alright, I think everyone in the community is hoping for the best, it would make sense that a contract within the defense industry (this is speculation) would lead to them having a smaller presence online. As for yourself, I remember you telling me about another companion book being in the works, could you tell us a little bit about that?

AN: Yes, Toni and I are working on another companion book. He posted a teaser, and causally mentioned it on another occasion, but not too many folks might have noticed; Steam is quiet these days with Andrey missing. For the operation we picked, I already have more Red Army material translated than can be reasonably included into any book. Among other, more conventional docs, I have an AAR by a ground attack aircraft division, one by the air defence command of the Army and very detailed information about disabled tank recovery operations from a Front's report. All are guaranteed to put to sleep anyone but the most dedicated WW2 enthusiast! There is no ETA at this point. And I'll say - it's a Red Army offensive. One might be

able to guess it from my mentioning a huge amount of data to work with, which is typical of these types of operations (both Bird Grove and Donets were similarly well-described from that perspective). Toni has been busy lately with making a mod after figuring out how to finally make impacts from explosives look reasonable (it was his pet peeve, since before I met him) very impressive feat by the way, provided no documentation exists! In the meanwhile, I went over the translations for the second time, trying to edit out any "translationese". Toni promises (as usual) a mess of a situation on the German side - I have not seen any of it myself yet, looking forward to the first draft of that. And I would love to have access to more lower level documents for armor formations - I suspect they do exist as I saw Yuri Pasholok referencing one in an article (while the document isn't available online, so he must have gotten it from Podolsk).

DA: Interesting! Maybe someone can figure out the operation from these clues, I myself will not be able to! Moving back to GT themselves, do you have any insight into any future games or DLC that are now obviously put on ice due to the current situation? Something we as players might expect if and when peace comes?

AN:

Going off public info as I do not have any privileged information to divulge even if I wanted to, here is what I can piece together from the scraps and hints:

(a) Nomonhan game (or DLC?) that's been in the works for 10-ish years. One can see a Japanese tank on Graviteam's YouTube page (by the way, how is it that we do not have Komsomolets with a tent in the game? Grave injustice!) and an occasional post (or here) of a Japanese field gun on the forum. Allegedly, BT-5s were added because the devs worked on them for the Khalkin Gol (might be true - given we got BT-5s vs BT-7s). There was also a sneak preview of what seems to be a WIP of a new operational phase

(b) As far as DLCs:

- the devs teased an operation with German captured KV-2 (clearly Pogostye): https://steamcommunity.com/app/312980/discussions/0/2763442118819279050/#c2763442118819425416).
- They also have yet unreleased Sinyavino (late summer 1942) from the older game, to go with a model of a very obscure German AFV (Pz I F - now that's not something your uncle can build in his garage), which incidentally took part in that engagement.
- And of course any other GTOS operation (the one with Czechoslovakian formation for example, can't recall the village name).
- The game has a model of Pz II "Flamingo", which I cannot place anywhere near theaters the game typically models (the tank was deployed with 18th Panzer and 39th Motorized

Corps), so your guess is as good as mine as to why the tank is in the game. It's possible a related DLC was considered at some point.

- Incidentally, flamethrower Pz III is utilized in the game on a single occasion: in Korotich (Rumyantsev) as part of a small reinforcements battlegroup coming into the battle area from 6th Panzerdivision. A few divisions received these special tanks according to Pasholok: 1st, 6th, 11th, 14th, 16th, 24th, 26th and Grossdeutschland. The latter was around for the third battle of Kharkiv, so perhaps more of that is coming?
- An operation that played a big role in setting up an ill-fated second battle of Kharkiv (Barvenkovo-Lozovskaya) is not currently featured in the game, and given the developers fondness for events close to Kharkiv, this could be plausible.
- In a similar vein, the events immediately following the second battle of Kharkiv ("Wilhelm", executed by Paulus 6th Army) could be plausible for the same exact reason.

(c) There is also a "future plans" list, but take this one with a grain of salt. This seems to be every idea that the developers had at the time with no regard to the effort involved. The first few were actually delivered, but that makes sense - it was largely the existing set of equipment.

DA: Although it is public information, I am not sure there is anyone else in the Graviteam community that keeps up with everything like you do! Before we wrap up I have a few more questions for you, firstly if there are any previously unreleased documents/images that were never added to the books or anecdotes/things people might not know?

AN: Looking for something "new", I realized that we did not include any of the Red Army maps in Bird Grove (unlike the Stalemate, where each unit chapter has links to maps at the end). So here are some of them:

- When you are wondering in your playthrough, why you face so many Maxims and ATRs on the Don's eastern bank, it's because it was manned by strictly defensive units: "fortified district" and "destroyers brigade". The former is a formation that's supposed to take over a fortification area, so it has heavy infantry weapons but lacks riflemen power (i do not have any information about heavy fortifications in that particular location, but it wasn't 75th original deployment) and the latter is a weird 1942 construct that includes two ATR battalions (72 in each), artillery regiment (16x76mm and 12x45mm), mining engineers battalion, mortar battalion (mixed - 4x120+8x82) and an SMG company with a tank battalion to boot! One in the operation does not have the tanks. Its participation in the engagement is limited by taking part in some artillery fire missions until pretty late when they (in coordination with the troops of 75th Fortified District) form a detachment that crosses the river and tries to advance to Olkhovatka from the east in the early hours of the 18th. Here is the map of 7DBde positions.

- A map of 86TBde losses. they claim that all losses with the exception of 2 were to HEAT shells, which is suspect. A good example of "just because it's a primary document it does not mean it's accurate".
- A map of 86TBde positions throughout the operation:
  86TBde's positions, September 15–18, 1942.png
- Voronezh Front did a study on Don crossing, and what they mentioned is exactly what developers put in the game: the Don river features a lot of riffles (i learned that word at the time: https://en.wikipedia.org/wiki/Riffle) that can serve as crossings during summer as the water level does not exceed 0.4 - 0.9 meters. In the section of the Don from Verilovka to Gremyachye there are several riffles present (and it proceeds to list them, with one next to Gnezdilovo and Zhivotinnoe (and one in between - called "Dvorskoy", but I don't know where that is). There is even a map in the document's appendix, but it's not scanned. And it says that the river bottom at some of those riffles has stones instead of sand. Now, none of these are actually used IRL as it's not a particularly reliable way to cross the river, but theoretically, should the tankers get really desperate, they could attempt this dubious maneuver. This is what players can tell themselves when they see the game-controlled forces sending tanks into Don and want to maintain "immersion":)
- This one is interesting. You can compare 38A plans for the operation vs actual outcome: page 28 vs page 90 respectively.
- Not a map, but actually an anecdote. When it was time to create Bird Grove and put battle groups on the map, it turned out that German positions were further north compared to what developers thought when they made the map. Adding a 1x10km strip north of Verilovka was prohibitively expensive at that point, so the developers got creative and added functionality that allowed to initiate attacks from map's edge squares instead.
- Switching to the Stalemate. Check out manpower in rifle companies of the 1st guards army (the superior formation of the Stalemate main protagonist 4th Guard Rifle corps): https://pamyat-naroda.ru/documents/view/?id=130479140 There is barely any infantry left, look at the 53rd rifle division!
- And as promised, bridges/crossings built and planned for by the bridge-pontoon engineer brigade. And the bridge near Chervonyy Shakhter wasn't there on the 17th, despite what WDS would have you believed :)

DA: Awesome! I imagine that some real nerds (like me) will find all of this stuff cool, we are lucky as players that the tank battalion belonging to the destroyer brigade was not present as one can see in my playthrough, fighting against the Maxim MGs and Anti-Tank rifles was enough for me. From what I have heard WDS makes pretty accurate wargames although I haven't played them myself, you're saying they missed some stuff you guys did not?

AN: While I do not find clicking on 100s of counters to be an appealing gameplay loop, I was intrigued when WDS released Panzer Campaigns Donbas 1943. Izyum-Barvenkovo is part of the new game's scope (the full game covers a lot more of course, including Semenovka-Marinovka and Kalinovka engagements). So I ended up following a video of someone playing the beginning of the operation (which has both 8 gds and 1st gds Army sectors), and I can spot inaccuracies right away: a flamethrower battalion in 11th assault engineers brigade (that was not added until June 1944 - WDS must have assumed later TO&E), the bridge available near Chervonyy Shakhter (wasn't built until 2:20AM on the 18th, only pontoon rafts were there at the time), an SPG regiment assigned to 23 TC when it was never part of it (it was in a sector of a different Army altogether), units of 11th ATABde near Izyum when they were in the 8th gds Army sector, 203mm guns available on the first day, while they were only in place by the 20th, infantry support tanks regiment on the right flank instead of the Izyum bridgehead - you get the point. None of it is critical (the only reason I noticed is because I worked on the companion book), and I do not mean to diminish the work done by good folks at WDS (their scope just for this operation is two armies, whereas ours was one corps), but you can tell they do not go to the same level of detail as we do when placing units and determining OOB. This is not just about looking at the army-level OOB and equipment list, one would have to dig into orders/AARs/sitreps of the subordinate units to piece together as complete of a picture as possible.

DA: Yeah, that's one of the many things that makes Mius Front so cool, TO&E on paper of a unit is one thing, actual OOB at a given time another. On that note I am out of questions! Unless there is something you would like to add we are done. Thank you for taking your time to do this for my channel and the GT community, take care!

AN:

My pleasure, hope your viewers find this interesting! And here to hoping developers get their lives back, and have both the means and the desire to continue working on the game!